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EXAMINER	
HUANG, DAVID S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,097	WIDERA ET AL.	
	Examiner	Art Unit	
	David Huang	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-49 and 51-60* is/are rejected.

7)☒ Claim(s) *50* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/9/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The references listed in the Information Disclosure Statement filed on 9 September 2004 have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B forms).

Specification

3. The disclosure is objected to because of the following informalities: The specification lacks the standard section headings. Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

4. **Claims 49, 50 and 60** are objected to because of the following informalities:

In **claim 49**, the language on line 5 is awkward. It is suggested to applicant to delete the *are* from the line.

Claim 50 is dependent on claim 49.

Claim 60 is dependent on itself. This is improper dependency. For examination on the merits, examiner will interpret the claim to depend on claim 59 since it contains the proper antecedent basis for a "satellite system." Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 25-60** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25 and 53 recite "a third time source of the plurality of first time sources" (lines 6-7 and 8-9, respectively). This is unclear since the preceding text of each claim fails to describe

and differentiate first and second time sources from a third time source. For examination on the merits, the claims will be interpreted as best understood.

Claims 26-52 and 54-60 are rejected since they are dependent on claims 25 and 53.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 25-34, 40-41, 43-49, and 51-60** are rejected under 35 U.S.C. 103(a) as being unpatentable over Read et al. (US Patent 6,236,623) in view of applicants' admitted prior art (Specification pages 1-3, [0001]-[0012]).

Regarding **claim 25**, Read et al. disclose a method for time synchronization of a plurality of measuring computers cooperating over a telecommunications network (LAN, column 4, line 39), the method comprising:

providing a plurality of first time sources associated with a first measuring computer, each of the first time sources having a different respective accuracy and configured to determine the transmit times(column 1, lines 55-65, and column 2, lines 5-7 and 65-67); and

selecting, using the first measuring computer, a third time source of the plurality of first time sources as a function of an accuracy of the third time source (column 9, lines 43-55, Figure 8).

Read et al. fail to expressly disclose that the first time sources are configured to provide a first time stamp.

Applicants' admitted prior art discloses a measurement process in which the departure of the measurement packed from the first measuring computer is recorded; i.e., a first time stamp is generated, which is used to determine a delay (page 2, [0005]).

Thus, it would have been obvious to one of ordinary skill in the art to apply the time stamp technique as taught by applicants' admitted prior art, to further specify the manner in which transmit times are determined for the predictable result of measuring the delay or transmit time of a measurement packet transmitted between devices.

Regarding **claim 26**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose the telecommunications network includes at least one of an internet and an intranet (LAN, column 4, line 39).

Regarding **claim 27**, Read et al. disclose everything claimed as applied to claim 25 above, but fail to expressly disclose performing a measurement method using the first time stamp.

Applicants' admitted prior art discloses a measurement process in which the departure of the measurement packed from the first measuring computer is recorded; i.e., a first time stamp is generated, which is used to determine the one-way delay (page 2, [0005]).

Thus, it would have been obvious to one of ordinary skill in the art to apply the time stamp technique as taught by applicants' admitted prior art, to further specify the manner in which transmit times are determined for the predictable result of measuring the one-way delay or transmit time of a measurement packet transmitted between devices.

Regarding **claim 28**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose the third time source is more accurate than at least one other of the plurality of first time sources (column 8, lines 24-40).

Regarding **claim 29**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose wherein the third time source (master control source, 12b, Figure 8) has a next best accuracy relative to a fourth time source (master control device 12a, Figure 8) of the plurality of first time sources, and further comprising attempting, using the first measuring computer, to initially select the fourth time source before the selecting the third time source, the selecting the third time source including automatically selecting the third time source when the fourth time source has failed (column 9, lines 43-55).

Regarding **claim 30**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose wherein the third time source includes signals of a satellite system, the third time source being more accurate than any other of the plurality of first time sources (column 9, lines 27-55).

Regarding **claim 31**, Read et al. disclose everything claimed as applied to claim 30 above, and further disclose the satellite system includes a global positioning system (geosynchronous satellites 78, Figure 8).

Regarding **claim 32**, Read et al. disclose everything claimed as applied to claim 30 above, and further disclose wherein the first measuring computer includes a local global positioning system receiver integrated therein and configured to receive the signals of the satellite system (GPS receiver 76a, Figure 8).

Regarding **claim 33**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose wherein each of the measuring computers includes a respective local clock continuously synchronized to a respective local GPS receiver via a network time protocol so as to provide a respective internally synchronized local clock (column 8, lines 54-57, Figure 1).

Regarding **claim 34**, Read et al. disclose everything claimed as applied to claim 33 above, and further disclose wherein a fourth of the plurality of first time sources includes signals of a satellite system (column 8, lines 45-49), and the third time source includes the internally synchronized local clock of the first measuring computer, the third time source having a next highest accuracy relative to the fourth time source (column 8, lines 24-40 and 54-57, Figure 1).

Regarding **claim 40**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose wherein the first measuring computer includes a first local clock, the first time source including the first local clock, the first local clock being unsynchronized, the unsynchronized first local clock having a fourth highest accuracy relative to other time sources of the plurality of first time sources (clock circuitry 18, Figure 1; column 9, lines 26-42).

Regarding **claim 41**, Read et al. disclose everything claimed as applied to claim 25 above, but fail to expressly disclose transmitting measurement packets between the first measuring computer and a second measuring computer of the plurality of measuring computers. Nevertheless, Read et al. do disclose periodically interrogating and monitoring the responses of each of the slave control devices, the master control device determines the delays to each of the slave control devices (column 2, lines 3-7).

Applicants' admitted prior art discloses a measuring method in which measurement packets are sent from a first measuring computer to a second measuring computer with a configurable distribution in time. The method determines a one-way delay (pages1-2, [0004]-[0005]). Because both Read et al. and the applicants' admitted prior art teach methods for calculating delays, it would have been obvious to one of ordinary skill in the art to substitute one method for the other to achieve the predictable result of sending measurement packets between two computers.

Regarding **claim 43**, Read et al. disclose everything claimed as applied to claim 41 above, and further discloses wherein the first measuring computer acts as a sender and the second measuring computer acts as a receiver (column 2, lines 28-41).

Regarding **claim 44**, Read et al. disclose everything claimed as applied to claim 41 above, but fails to expressly disclose using the first measuring computer:

recording the first time stamp, the first time stamp being a send time stamp of an outgoing measurement packet;

generating first data associated with the send time stamp; and

transmitting the data to the second measuring computer with the outgoing measurement packet.

Nevertheless, Read et al. do disclose the master control device determines the delays to each of the slave control devices (column 2, lines 3-7).

Applicants' admitted prior art discloses a delay measurement method in which a time stamp is generated and transmitted with the measurement packet and sequence numbers (page 2, [0005]). The method determines a one-way delay (pages 1-2, [0004]-[0005]). Because both

Read et al. and the applicants' admitted prior art teach methods for calculating delays, it would have been obvious to one of ordinary skill in the art to substitute one method for the other to achieve the predictable result of sending measurement packets between two computers to determine a delay.

Regarding **claim 45**, the combination of Read et al. and applicants' admitted prior art discloses everything claimed as applied to claim 41, and further disclose transmitting a sequence number to the second measuring computer with the outgoing measurement packet (see rejection of claim 44, line 11).

Regarding **claim 46**, the combination of Read et al. and applicants' admitted prior art discloses everything claimed as applied to claim 44, and further disclose first data relates to information about at least one of the third time source, a type of synchronization, an accuracy of the synchronization, and an accuracy of the send time stamp (sequence numbers; see rejection of claim 44, line 11).

Regarding **claim 47**, the combination of Read et al. and applicants' admitted prior art discloses everything claimed as applied to claim 44 above, but fail to expressly disclose generating, with the second measuring computer, a receive time stamp of an incoming measurement packet and second data associated with the receive time stamp.

Applicants' admitted prior art discloses the second measuring computer records the arrival of the measurement packet and generates a second time stamp (page 2, [0005]). The measurement results are retrieved by the control computers from the second measuring computer as measured data and stored in a database, where they are made available for visualization (page 2, [0008]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to provide the combination of Read et al. and applicants' admitted prior with the second measuring computer processes disclosed by applicants' admitted prior art since the generation and visualization of the measurement results is more user friendly.

Regarding **claim 48**, the combination of Read et al. and the applicants' admitted prior art discloses everything claimed as applied to claim 47 above, and further disclose wherein the data associated with the receive time stamp relates to information about at least one of the third time source, a type of synchronization, an accuracy of the synchronization, and an accuracy of the receive time stamp (one-way delay between two time stamps, page 2, [0005]; see rejection of claim 25 above).

Regarding **claims 49 and 51**, Read et al. disclose everything claimed as applied to claim 41 above, but fail to expressly disclose generating first data associated with the first time stamp, the first time stamp being a send time stamp;

generating second data associated with a receive time stamp; and

assigning the first data and the second data to a predetermined evaluation.

Nevertheless, Read et al. do disclose the master control device determines the delays to each of the slave control devices (column 2, lines 3-7).

Applicants' admitted prior art discloses a delay measurement method in which a time stamp is generated and transmitted with the measurement packet and sequence numbers (page 2, [0005]). The method determines a one-way delay between time stamps from first and second measuring computers (pages1-2, [0004]-[0005]). Because both Read et al. and the applicants' admitted prior art teach methods for calculating delays, it would have been obvious to one of

ordinary skill in the art to substitute one method for the other to achieve the predictable result of sending measurement packets between two computers to determine a delay.

Regarding **claim 52**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose providing a plurality of second time sources associated with a second measuring computer of the plurality of measuring computers, each of the second time sources having a different respective accuracy (salve control devices column 1, lines 55-65).

However, Read et al. fail to expressly disclose the second time sources are configured to provide a second time stamp.

Nevertheless, Read et al. disclose each slave control device comprises, clock circuitry fro maintaining a slave time, and a communication controller for receiving the interrogation signal and sending the acknowledgement signal in response. Each acknowledgment signal is characterized by a time delay (column 2, lines 35-36 and 38-42).

Applicants' admitted prior art discloses the second measuring computer records the arrival of the measurement packet and generates a second time stamp which is used with the first time stamp to calculate a delay between the two time stamps (page 2, [0005]). Because both Read et al. and the applicants' admitted prior art teach methods for calculating delays, it would have been obvious to one of ordinary skill in the art to substitute one method for the other to achieve the predictable result of sending measurement packets between two computers to determine a delay.

Regarding **claim 53**, Read et al. discloses a time synchronization device comprising:

a first measuring computer (master control device 12, Figure 1);

a second measuring computer cooperating with the first measuring computer over a telecommunications network (slave control device 14, Figure 1); and

a plurality of first time sources associated with a first measuring computer, each of the first time sources having a different respective accuracy (GPS receiver 76 and clock circuitry 18, Figure 1);

wherein the first computer is configured to select a third time source of the plurality of first time sources as a function of an accuracy of the third time source (column 9, 26-55, Figure 8).

However, Read et al. fail to expressly disclose the first time sources is configured to provide a first time stamp.

Applicants' admitted prior art discloses a measurement process in which the departure of the measurement packed from the first measuring computer is recorded; i.e., a first time stamp is generated, which is used to determine a delay (page 2, [0005]).

Thus, it would have been obvious to one of ordinary skill in the art to apply the time stamp technique as taught by applicants' admitted prior art, to further specify the manner in which transmit times are determined for the predictable result of measuring the delay or transmit time of a measurement packet transmitted between devices.

Regarding **claim 54**, Read et al. disclose everything claimed as applied to claim 53, and further disclose a plurality of second time sources associated with a second measuring computer of the plurality of measuring computers, each of the second time sources having a different respective accuracy (salve control devices column 1, lines 55-65).

However, Read et al. fail to expressly disclose the second time sources are configured to provide a second time stamp.

Nevertheless, Read et al. disclose each slave control device comprises, clock circuitry fro maintaining a slave time, and a communication controller for receiving the interrogation signal and sending the acknowledgement signal in response. Each acknowledgment signal is characterized by a time delay (column 2, lines 35-36 and 38-42).

Applicants' admitted prior art discloses the second measuring computer records the arrival of the measurement packet and generates a second time stamp which is used with the first time stamp to calculate a delay between the two time stamps (page 2, [0005]). Because both Read et al. and the applicants' admitted prior art teach methods for calculating delays, it would have been obvious to one of ordinary skill in the art to substitute one method for the other to achieve the predictable result of sending measurement packets between two computers to determine a delay.

Regarding **claim 55**, Read et al. disclose everything claimed as applied to claim 53 above, and further disclose wherein the telecommunications network includes at least one of an internet and an intranet (LAN, column 4, line 39).

Regarding **claim 56**, Read et al. disclose everything claimed as applied to claim 53 above, but fail to expressly disclose the first time stamp is usable for performing a measurement method.

Applicants' admitted prior art discloses a measurement process in which the departure of the measurement packed from the first measuring computer is recorded; i.e., a first time stamp is generated, which is used to determine the one-way delay (page 2, [0005]).

Thus, it would have been obvious to one of ordinary skill in the art to apply the time stamp technique as taught by applicants' admitted prior art, to further specify the manner in which transmit times are determined for the predictable result of measuring the one-way delay or transmit time of a measurement packet transmitted between devices.

Regarding **claim 57**, Read et al. disclose everything claimed as applied to claim 53 above, and further disclose the third time source is more accurate than at least one other of the plurality of first time sources (column 8, lines 24-40).

Regarding **claim 58**, Read et al. disclose everything claimed as applied to claim 53 above, and further disclose wherein: the third time source (master control source, 12b, Figure 8) has a next best accuracy relative to a fourth time source (master control device 12a, Figure 8) of the plurality of first time sources, and the first measuring computer to initially attempt to select the fourth time source before the selecting the third time source, and then automatically selecting the third time source when the fourth time source has failed (column 9, lines 43-55).

Regarding **claim 59**, Read et al. disclose everything claimed as applied to claim 54 above, and further disclose wherein the third time source includes signals of a satellite system, the third time source being more accurate than any other of the plurality of first time sources (column 9, lines 27-55).

Regarding **claim 60**, Read et al. disclose everything claimed as applied to claim 59 above, and further disclose the satellite system includes a global positioning system (geosynchronous satellites 78, Figure 8).

9. **Claim 42** is rejected under 35 U.S.C. 103(a) as being unpatentable over Read et al. (US Patent 6,236,623) in view of applicants' admitted prior art (Specification pages 1-3, [0001]-

[0012]) as applied to claim 25 above, and further in view of Mills (Non Patent Literature, cited in IDS, hereinafter Mills-I).

Regarding **claim 42**, Read et al. disclose everything claimed as applied to claim 25 above, but fail to expressly disclose the measurement packets include user datagram protocol packets.

Mills-I disclose a Network Time Protocol (NTP) built on user datagram protocol (UDP), which provides a connectionless transport mechanism.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to specify the measurement packets taught by the combination of Read et al. and applicants' admitted prior art to be user datagram protocol packets since UDP is faster and more efficient by avoiding a need for circuit management, duplicate detection or retransmission facilities (page 3, column 2).

10. **Claims 35-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Read et al. (US Patent 6,236,623) in view of applicants' admitted prior art (Specification pages 1-3, [0001]-[0012]) as applied to claim 25 above, and further in view of Mills (Non-patent Literature, cited in IDS, hereinafter Mills-II).

Regarding **claim 35**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose wherein the first measuring computer includes a first local global positioning system receiver and first local clock (GPS receiver 76 and clock circuitry 18, Figure 1), and further comprising, when no signal of a global positioning system is present at the first local global positioning system receiver, synchronizing the network to a second local clock of at

least one predetermined second measuring computer of the plurality of measuring computers so as to provide an external synchronization (column 9, lines 43-55, Figure 8).

However, Read et al. fail to expressly synchronizing the first local clock via a network time protocol to a second local clock of at least one predetermined second measuring computer of the plurality of measuring computers after a predetermined time interval so as to provide an external synchronization.

Mills-II disclose an algorithm for Network Time Protocol (NTP) engineered to discipline a computer clock to a source of standard time, such as a GPS receiver or another computer synchronized to such a source (Page 1, Abstract). Mills-II also discloses at designated intervals, a client sends a request to each in a set of configured servers and expects response at some later time (page 1, column 2 – page 2, column 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to provide the combination of Read et al. and applicants' admitted prior art with the NTP algorithm and interval requests taught by Mills-II since they improve timing accuracy by mitigating among multiple servers provides the most accurate and reliable time (page 1, column 2) and provides for time correction (page 2, column 1).

Regarding **claim 36**, Read et al. disclose the claimed invention except for the time interval is adjustable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the predetermined time interval adjustable , since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

Regarding **claim 37**, Read et al. disclose everything claimed as applied to claim 35 above, disclose wherein the second local clock has a second highest accuracy relative to an accuracy of other time sources of the plurality of first time sources (column 9, lines 26-42; this is implicitly taught since the GPS receiver provide the most accurate clock, and therefore, any master clocks synchronized to the GPS time would have the second highest accuracy).

Regarding **claim 38**, Read et al. disclose everything claimed as applied to claim 25 above, and further disclose wherein the first measuring computer includes a first local clock (clock circuitry 18, Figure 1).

However Read et al. fails to expressly disclose synchronizing the first local clock via a network time protocol to a second local clock of at least one predetermined second measuring computer of the plurality of measuring computers after a predetermined time interval so as to externally synchronize the first local clock, the first time source including the externally synchronized first local clock, the externally synchronized first local clock having a third highest accuracy relative to other time sources of the plurality of first time sources.

Nevertheless, Read et al. disclose master clock circuitry is synchronized to the GPS time provided by the GPS receiver (column 8, lines 54-57, Figure 1).

Mills-II disclose an algorithm for Network Time Protocol (NTP) engineered to discipline a computer clock to a source of standard time, such as a GPS receiver or another computer synchronized to such a source (Page 1, Abstract). Mills-II also discloses at designated intervals, a client sends a request to each in a set of configured servers and expects response at some later time (page 1, column 2 – page 2, column 1). Since primary servers are independently synchronized to GPS receivers, their clocks have presumed zero time error (page 5, column 2)

and computers can be reliably synchronized to better than a millisecond in LANs using network time protocol (page 1, column 1; together these implicitly disclose that the GPS receiver provides the highest accuracy time, followed by clocks synchronized to GPS receivers, and thirdly, those synchronized over a network).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to provide the combination of Read et al. and applicants' admitted prior art with the NTP algorithm and interval requests taught by Mills-II since they improve timing accuracy by mitigating among multiple servers provides the most accurate and reliable time (page 1, column 2) and provides for time correction (page 2, column 1).

11. **Claim 39** is rejected under 35 U.S.C. 103(a) as being unpatentable over Read et al. (US Patent 6,236,623) in view of applicants' admitted prior art (Specification pages 1-3, [0001]-[0012]) as applied to claim 25 above, and further in view of Montenegro et al. (cited in IDS).

Regarding **claim 39**, Read discloses everything claimed as applied to claim 25 above, but fails to expressly disclose synchronizing a first local clock of the first measuring computer via a network time protocol and storing a type and an accuracy of the synchronizing.

Montenegro et al. disclose a network device that stores a list identifying plural time service providers accessible over a LAN in order of priority, and which, at predetermined time intervals, determines the highest priority time service provider in the list that is available and selects that time service provider (column 1, lines 43-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the combination of Read et al. and applicants' admitted prior art with the network device taught by Montenegro et al. since it improves both reliability and timing

accuracy by ensuring that the highest priority time service provider is used (column 2, lines 4-11).

Allowable Subject Matter

12. **Claim 50** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Huang whose telephone number is (571) 270-1798. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSH/dsh – 8/3/2007

Shuwang Liu

SHUWANG LIU
SUPERVISORY PATENT EXAMINER